

## Increased Adult Body Length with Delayed Emergence Date in *Necydalis formosana* (Cerambycidae)

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**Abstract** *Necydalis formosana* KANO (Cerambycidae, Lepturinae), mainly infesting the basal part of *Symplocos coreana* (Symplocaceae) dead trunk, showed a tendency of increased adult body length with succeeding dates of the first year's adult emergence.

*Necydalis formosana* KANO is a lepturine cerambycid species mainly infesting *Symplocos coreana* (Symplocaceae) (KOJIMA & HAYASHI, 1969). The host part most preferred by the species is basal part of dead trunk (GÔ, 1972, 1977).

On 18 April 1982, dead trunks of *S. coreana* were cut and collected on Mt. Wasamata, the Ômine Mts., Nara Prefecture, Japan. The wood, as kept in an air-conditioned room in Kyoto, yielded adults of 3 cerambycid species, *Ohbayashia nigromarginata* HAYASHI, *Pyrrhona laeticolor* BATES and *N. formosana*.

Meanwhile, the author noticed a tendency of increased adult body length of *N. formosana* with succeeding dates of adult emergence from 16 to 24 May 1982.

The wood, kept in the air-conditioned room, later yielded adults of the same species for 3 years (1983–1985), which probably involved the same population as that of 1982 and their progeny.

Figure 1 shows the relationship between the emergence dates of adult beetles for 4 years (abscissa) and adult body lengths (ordinate). A definite positive correlation ( $r=0.83$ ) between the succeeding emergence dates and the body lengths is seen in 1982. The correlation disappears in later emergence from 1983 on, probably due to disturbance of natural life cycle by indoor rearing.

In the family Cerambycidae, some species exhibit considerable variation in adult body length, and others exhibit uniformity. Dates of adult emergence also vary in some species, and not in others. Why and how such variation takes place has not been elucidated as yet. In the present species, emergence within one brood appears rather synchronized in the natural condition, and small variation of emergence dates among individuals might reflect variation of time required for physiological preparation for the emergence of new adult beetles, which are considerably variable in body length.

Another interpretation of the present data is that in this species a certain ecological advantage to smaller individuals is expected with earlier emergence date.

Further ecological studies are needed for elucidating the present issue not only

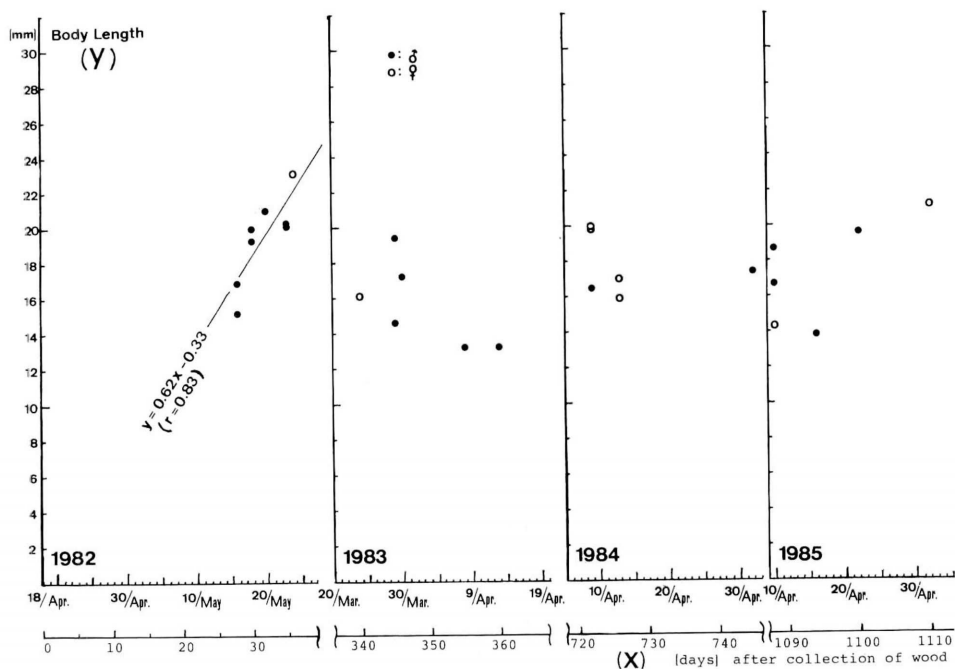


Fig. 1. Relationship between the emergence dates of adult beetles of *Necydalis formosana* KANO from *Symplocos coreana* wood for 4 years (abscissa) and their adult body lengths (ordinate).

for this species, but also for the Cerambycidae as a whole.

## 要 約

岩田隆太郎： トガリバホソコバネカミキリの成虫羽化脱出日による体長の増加傾向について。——タンナサワフタギの枯幹下部をおもに食するトガリバホソコバネカミキリ *Necydalis formosana* KANO は、成虫の羽化脱出1年目において、羽化脱出日が遅くなるに従い、成虫の体長が増加する傾向を示した。

## References

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